SONY

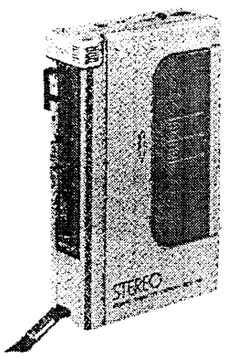
3-765-886-21 (4)

STEREO CASSETTE-CORDER

# TCS-430

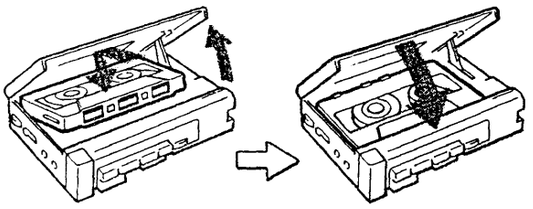
## OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly and retain it for future reference.



Sony Corporation Printed in Japan © 1987

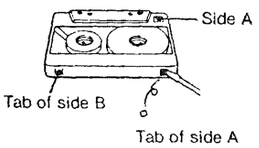
## CASSETTE INSERTION

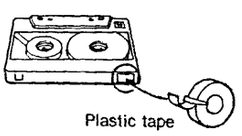


**To remove the cassette,** press the STOP/EJECT button in the stop mode.

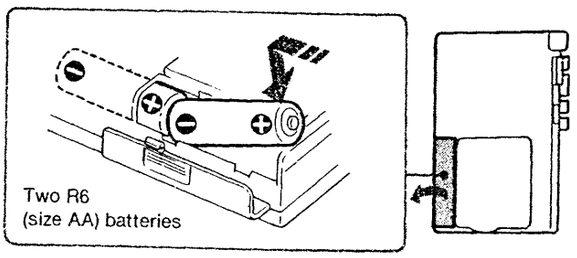
### TO PREVENT ACCIDENTAL ERASURE

Break out the small tabs, as illustrated below. To record on a cassette after the tabs have been removed, simply cover each slot.



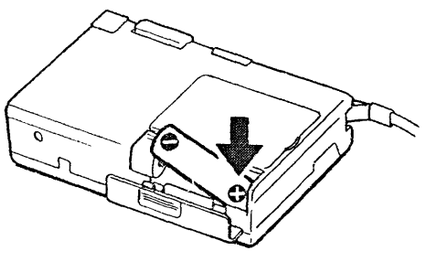
# BATTERY INSTALLATION



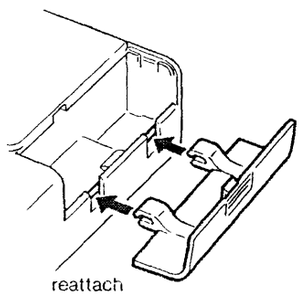

When the REC/BATT indicator glows faintly and playback sound becomes distorted or unstable, replace the batteries with new ones.

Concerning battery life and other power sources, see "Specifications".

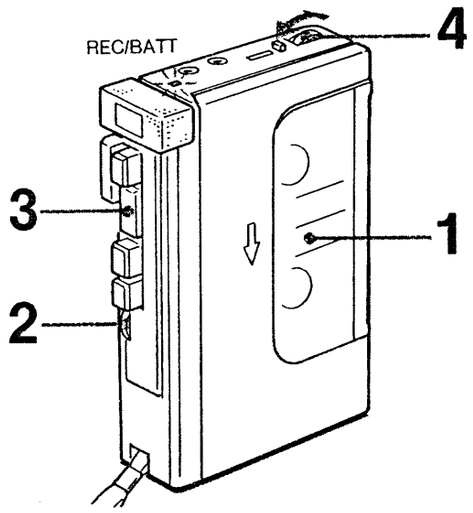
**To remove the batteries**



**If the battery compartment lid has come off**



# PLAYBACK




**1 Insert a cassette.**

**2 Set the playback speed to normal (center position).**

**3 Depress the ▼ button.**
Playback will begin.

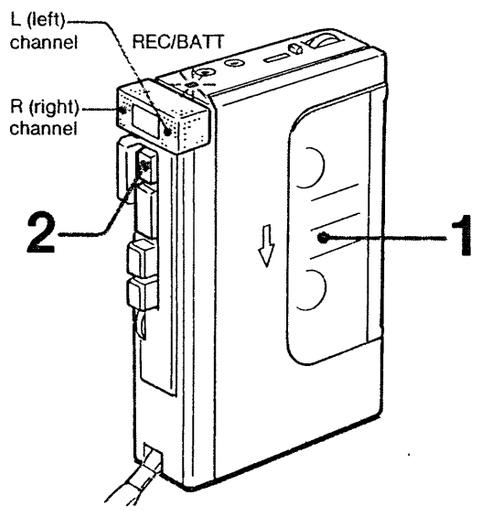
**4 Adjust the volume.**

**To stop the tape,** press the STOP/EJECT button.

When the supplied headphones are connected to the PHONES jack, the sound will be heard in stereo mode. In this case, the sound cannot be heard from the speaker.

# RECORDING WITH THE BUILT-IN MICROPHONE

- The sound to be recorded can be heard through the headphones.
- Monitor volume is adjustable.
- For recording on this unit, use only TYPE I (normal) tapes. Do not use TYPE II ($CrO_2$) tapes or TYPE IV (metal) tapes.




**1 Insert a cassette.**

**2 Depress the ● button.**
The ▼ button will be depressed automatically and the recording will begin.

**To stop the tape,** press the STOP/EJECT button.

**Notes**
- Be sure not to set the headphone volume too high, otherwise a howling effect (acoustic feedback) may occur.
- When you take off the headphones, first lower the headphone volume, and take them off, otherwise a howling effect may occur.
- Make sure that nothing is connected to the MIC jack. Otherwise, a recording with the built-in microphone cannot be made.

**To correct a previously recorded portion**
During playback, simply depress the ● button and the recorder will immediately change to the recording mode.

**To review the recording quickly—quick review function**
Simply depress the ▲▲ button while recording. By releasing the ▲▲ button, the recorder will go into the playback mode for review of the recorded material. To start recording again, depress the ● button.

**PB EQ selector**
For TYPE IV (metal) tapes or TYPE II ($CrO_2$) tapes, set this selector to the METAL/$CrO_2$ position.
For TYPE I (normal) tapes, set it to NORM.

**Speed control**
The playback speed can be adjusted with the SPEED CONTROL. Set to F (fast) to increase or to S (slow) to decrease.
This control has no effect on the recording speed.

**Cue and review function**
During playback, you may skip-over or repeat a certain portion of the tape by pressing the ⏬ or ⏫ button.
When the ⏬ or ⏫ button is released, the recorder will automatically return to the playback mode.

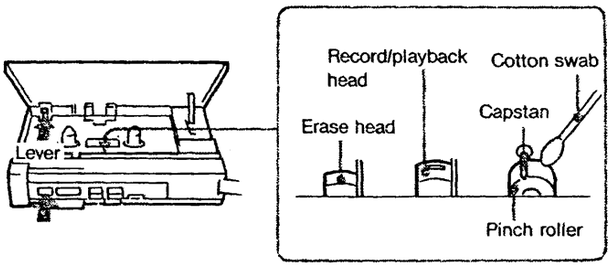
**When the tape comes to its end**
In playback or recording mode, tape motion stops at the end of the tape and the locked buttons will return to the original position automatically.
In fast forward or rewind mode, however, the locked buttons will not be released automatically. Be sure to press the STOP/EJECT button to release the ⏬ or ⏫ button.

## CLEANING THE HEADS

**Clean the heads after every 10 hours of use** to enjoy optimum sound.

1 While pressing the lever in the direction of the arrow as shown, depress the ● button to move the heads out for easier access. The ● button cannot be depressed unless the lever is pressed.

2 Moisten a cotton swab or soft cloth with denatured alcohol, and gently wipe the parts shown below.

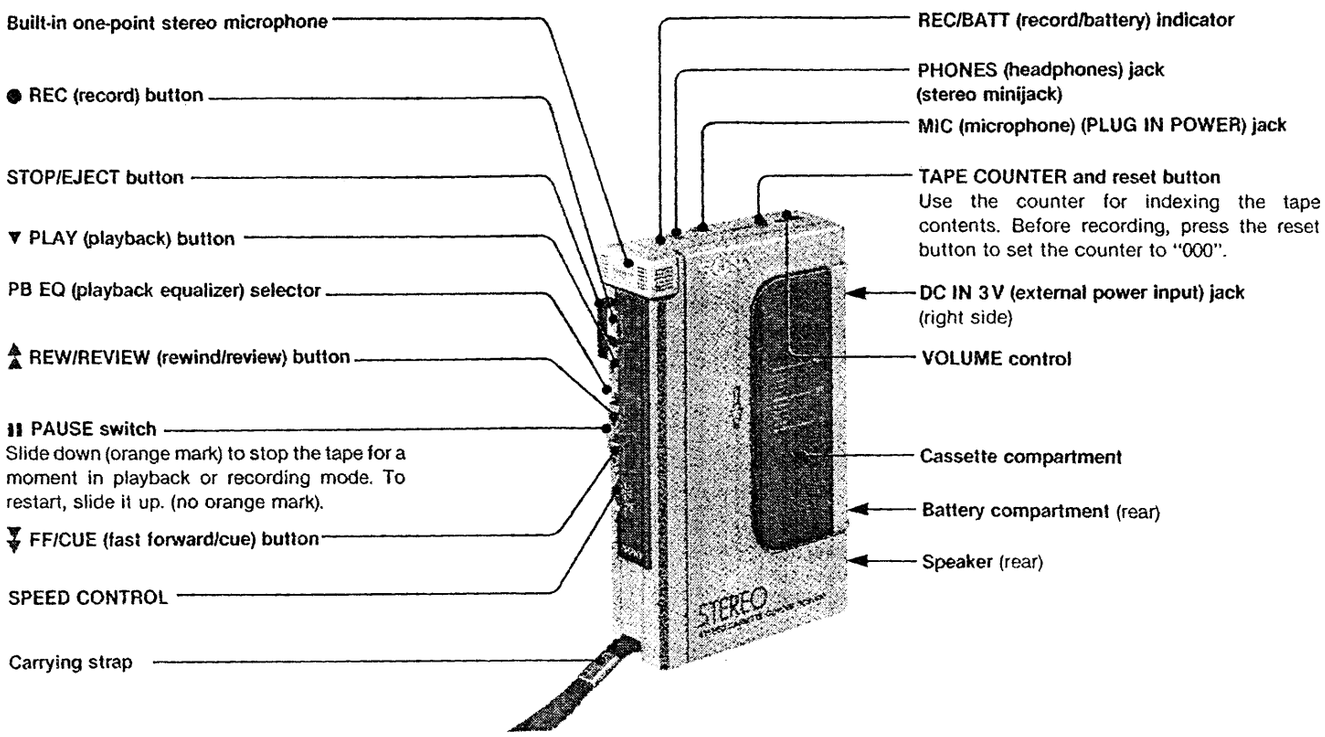



**Note:** After the heads have been cleaned, be sure to press the STOP/EJECT button to move the heads back to their original positions. Otherwise, a cassette cannot be inserted.

## CLEANING THE CASING

Clean the casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use solvents such as alcohol, benzine, or thinner as they may mar the finish of the casing.

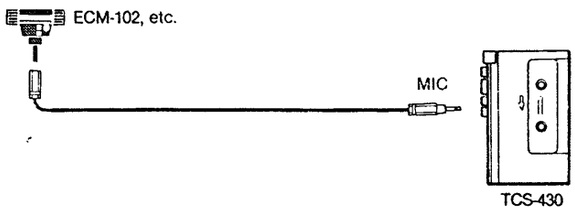
# PARTS IDENTIFICATION


Built-in one-point stereo microphone
● REC (record) button
STOP/EJECT button
▼ PLAY (playback) button
PB EQ (playback equalizer) selector
▲▲ REW/REVIEW (rewind/review) button
❚❚ PAUSE switch
Slide down (orange mark) to stop the tape for a moment in playback or recording mode. To restart, slide it up. (no orange mark).
▼▼ FF/CUE (fast forward/cue) button
SPEED CONTROL
Carrying strap
REC/BATT (record/battery) indicator
PHONES (headphones) jack
(stereo minijack)
MIC (microphone) (PLUG IN POWER) jack
TAPE COUNTER and reset button
Use the counter for indexing the tape contents. Before recording, press the reset button to set the counter to "000".
DC IN 3 V (external power input) jack
(right side)
VOLUME control
Cassette compartment
Battery compartment (rear)
Speaker (rear)
STEREO

# RECORDING FROM VARIOUS SOUND SOURCES

Various sound sources can be connected to the proper recorder jacks on the top using the optional cord.

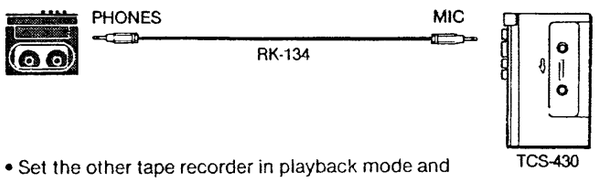
### Recording with an external microphone




When connecting an electret condenser stereo microphone with "Plug-in power" system such as ECM-102 (optional), etc., the power is supplied from the MIC (PLUG IN POWER) jack of the TCS-430, and you do not have to insert a battery in the microphone.

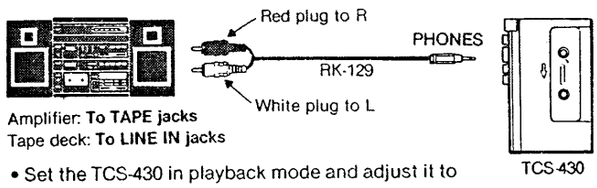
**Note:** To connect the ECM-102, use the plug adaptor supplied with the ECM-102. If you connect it directly to the MIC jack and record, the microphone may pick up the mechanical noise of the TCS-430.

### Dubbing from another stereo tape recorder




- Set the other tape recorder in playback mode and adjust it to a normal listening level.
- Set the TCS-430 in record mode.

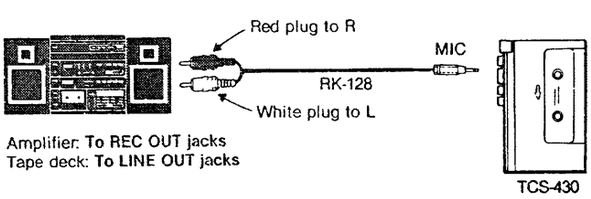
### Recording onto stereo components




Amplifier: **To TAPE jacks**
Tape deck: **To LINE IN jacks**

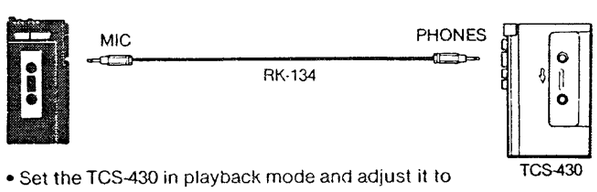
- Set the TCS-430 in playback mode and adjust it to a normal listening level.

### Recording from stereo sound sources




Amplifier: **To REC OUT jacks**
Tape deck: **To LINE OUT jacks**

### Dubbing onto a stereo tape recorder




- Set the TCS-430 in playback mode and adjust it to a normal listening level.
- Set the other tape recorder in record mode.

## FEATURES

- Compact size for easy one-hand operation.
- Adjustable tape speed in playback mode.
- Built-in one-point stereo microphone.
- PB EQ (playback equalizer) selector for optimum playback.
- MIC (PLUG IN POWER) jack supplies power to an electret condenser stereo microphone with "Plug-in power" system such as ECM-102 (optional), etc.

## PRECAUTIONS

- Do not open the casing. Refer servicing to qualified personnel only.
- Operate the unit on 3 V DC.
  For AC operation, use the AC power adaptor recommended for this unit. Do not use any other AC power adaptor.
  For car battery operation, use the car battery cord recommended for this unit. Do not use any other car battery cord.
- The nameplate indicating operating voltage, etc. is located on the bottom exterior.
- Disconnect the AC power adaptor from the wall outlet when the unit is not to be used for an extended period of time.
- Do not place the unit in a location near heat sources such as radiators or airducts, or in a place subject to direct sunlight, excessive dust, moisture, rain or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries and disconnect the AC power adaptor or the car battery cord, and have the unit checked by qualified personnel before operating it any further.
- Since a strong magnet is used for the speaker, metallic objects such as pins, etc. may cling to the unit. Keep personal credit cards using magnetic coding or spring-wound watches away from the unit to prevent possible damage from the magnet.
- If the unit has not been used for a long time, set it in the playback mode and warm it up for a few minutes before inserting a cassette.

**About the headphones**

- Avoid playing the unit at so loud a volume that extended play might affect your hearing.
- **At a high volume outside sounds may become inaudible. Avoid listening to the unit in situations where hearing must not be impaired, for example, while driving or cycling.**
- If your headphones are of open-air design, sounds go out through the headphones. Remember not to disturb those close to you.

**Note on cassettes longer than 90 minutes**

The use of cassettes longer than 90 minutes is not recommended except for long continuous recording or playback. When using this cassette tape, do not switch the tape operation mode frequently. This results in the tape becoming entangled because this very thin tape can easily be stretched.

If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

## SPECIFICATIONS

| | |
|---|---|
| Recording system | 4-track 2-channel stereo |
| Speaker | Approx. 4.5 cm (1 13/16 inches) dia. |
| Fast winding time | Approx. 2 min. with Sony C-60 cassette |
| Frequency response | 70–10,000 Hz<br>40–14,000 Hz (playback) |
| Tape speed | 4.8 cm/sec. (1 7/8 ips) approx. $^{+15}_{-10}$% adjustable in playback |
| Input | Microphone input jack (stereo minijack)<br>sensitivity 0.2 mV (–72 dB)<br>for 3 kilohms or lower impedance microphone |
| Output | Headphones (stereo minijack)<br>load impedance 8–300 ohms |
| Power output | Headphones: 20 mW + 20 mW (32 ohms, at 10% harmonic distortion)<br>Speaker: 170 mW (at 10% harmonic distortion) |
| Power requirements | 3 V DC<br>Two R6 (size AA) batteries<br>DC IN 3 V jack accepts:<br>• optional Sony AC-D2M AC power adaptor available in the United Kingdom for use on 240 V AC, 50 Hz, or available in the USA for use on 120 V AC, 60 Hz<br>• optional Sony EBP-500A battery case for use on two R20 (size D) batteries<br>• optional Sony DCC-70 car battery cord for use with 12 V car battery |

Battery life (hours)

| Batteries | Continuous recording |
|---|---|
| Sony batteries SUM-3 (NS) | Approx. 2 |
| Sony Alkaline batteries AM3 (N) | Approx. 6.5 |

| | |
|---|---|
| Dimensions | Approx. 91.1 × 133.4 × 33.5 mm (w/h/d)<br>(3 5/8 × 5 3/8 × 1 3/8 inches)<br>incl. projecting parts and controls |
| Weight | Approx. 300 g (10.6 oz)<br>incl. batteries, not incl. other accessories |
| Supplied accessories | Stereo headphones (open-air type, 1)<br>Carrying case (1)<br>Sony batteries SUM-3 (NS) (2) |

Design and specifications subject to change without notice.

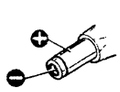
**Note**
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

### OPTIONAL ACCESSORIES

AC power adaptor AC-D2M
Car battery cord DCC-70
Electret condenser stereo microphone ECM-102, etc.
Connecting cord
RK-128 (stereo miniplug to two phono plugs with attenuator)
RK-129 (stereo miniplug to two phono plugs without attenuator)
RK-134 (stereo miniplug to stereo miniplug with attenuator)
Battery case EBP-500A

Your dealer may not handle some of the listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.

**Note:** Use only the recommended AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



Polarity of the Sony plug

## TROUBLESHOOTING GUIDE

Should any problem occur with the unit, make the following simple tests to determine whether or not servicing is required.
If the problem persists after you have made these tests, consult the nearest Sony dealer.

**Cassette cannot be inserted.**
- Cassette is being inserted improperly. See "Cassette Insertion".
- The ▼ button is depressed.

**The ● button cannot be depressed.**
- No cassette in the cassette compartment.
- The cassette inserted has had the tabs removed. Cover the slot with a small piece of plastic tape. See "Cassette Insertion".

**The ▼ button cannot be locked.**
- The tape is completely wound towards the arrow direction on the cassette compartment lid. Rewind the tape with the ⏫ button.

**Tape does not move.**
- Incorrect polarity of batteries.
- Weak batteries.
- The ❚❚ switch is slid down (orange mark).
- The AC power adaptor is not connected (on AC operation).
- Battery operation is attempted while the AC power adaptor or car battery cord is connected to the recorder but not to the wall outlet or to the cigarette lighter socket.

**No sound from the speaker.**
- The headphones are plugged in.
- The VOLUME control is turned down completely.

**Tape speed is excessively fast or slow while playing back.**
- Improper setting of the tape SPEED CONTROL.

**Weak or distorted sound, sound drop-outs, or excessive noise.**
- Weak batteries.
- Dirty heads. See "Maintenance".

**Poor tone quality during tape playback.**
- Weak batteries.
- Dirty capstan and pinch roller. See "Maintenance".

**Recording cannot be made or is unsatisfactory.**
- Improper connection. See "Recording from various sound sources".
- Weak batteries.
- Dirty record/playback head. See "Maintenance".

**Unsatisfactory erasing.**
- Dirty erase head. See "Maintenance".